REMARKS

The present Amendment cancels claims 1-11 and adds new claims 12-17. Therefore, the present application has pending claims 12-17.

Drawings

The drawings are objected to under 37 CFR 1.84(p)(5) as including reference characters not mentioned in the description. Where appropriate, Applicants have amended either the drawings or the specification to overcome this objection. Therefore, this objection should be withdrawn.

35 U.S.C. §112 Rejections

Claims 1, 2, 6 and 8 stand rejected under 35 U.S.C. §112, second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. As noted above, claims 1, 2, 6 and 8 have been canceled. Therefore, this rejection regarding claims 1, 2 6 and 8 is rendered moot.

35 U.S.C. §101 Rejections

Claim 6 stands rejected under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter. As noted above, claim 6 has been canceled. Therefore, this rejection regarding claim 6 is rendered moot.

35 U.S.C. §103 Rejections

Claims 1, 2, 4, 6-8, and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U. S. Patent No. 6,889,197 to Lidow in view of U. S. Patent No. 7,216,086 to Grosvenor et al. ("Grosvenor"). Therefore, this rejection regarding claims 1, 2, 4, 6-8, and 10 is rendered moot.

Claims 3, 5, 9 and 11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lidow in view of Grosvenor, further in view of U.S. Patent Application Publication No. 2004/0064350 to Hanazato et al. ("Hanazato"). As

noted above, claims 1-11 have been canceled. Therefore, this rejection regarding claims 3, 5, 9 and 11 is rendered moot.

New Claims 12-17

Claims 12-17 were added to more clearly describe features of the present invention. More specifically, claims 12-17 were added to more clearly describe that the present invention is directed to supply-and-demand making method and system as recited, for example, in independent claims 12 and 15.

The present invention relates to an art of making a supply-and-demand plan of a product. In making a supply-and-demand plan, various matters such as manufacturing capacity of a manufacturing site, relationship to stock quantity, relationships to other products, relationship to replenishment site of parts and relationship to distribution site for shipment are concerned. Allocation processing to create a supply plan corresponding to demand becomes very complex. As a result, often times, a delivery time according to the supply-and-demand plan is not satisfied. This is a problem in this field.

The present invention solves this problem. In the present invention, in the supply planning unit 120, a supply plan proposal is calculated according to a conventional manner. It assumes that a delivery time is not satisfied according to the calculated supply plan proposal. However, if an item (supply disabled item) which cannot satisfy a delivery time is present, information concerning the supply disabled item is provided to a user. Further, means which may remove occurrence of supply disabled item is provided to the user. Then, the supply plan proposal can be revised through a dialog processing with the user, so that a supply plan which can satisfy a delivery time is created.

That is, in the present invention, data of supply capacity at each site is previously recorded. The supply plan proposal calculated according to the conventional manner is compared with the supply capacity at each site, and it is confirmed whether or not a supply disabled item is present. If there is a supply disabled item, notification is provided to a user by clearly displaying the fact. In the present invention, the user is notified on a screen with regard to what item is supply disabled, a site where the supply disabled item is present, and a period when the supply disable occurred. The period is a unit period of calculation. Further, in the present invention, changing means which may be used to remove the occurrence of the supply disabled item is provided and displayed to the user according to selection of screen.

As the changing means, (1) a screen (Fig.13) on which it can be selected that quantity of supply plan over the supply capacity can be shifted to a supply plan of another period, (2) a screen (Fig.19) on which it can be selected that supply means (transportation means) can be changed, and (3) a screen (Fig.14) on which it can be selected that the supply capacity (manufacturing capacity) can be changed, are provided to the user. Upon reception of selection input made by the user, the change is performed. The result of the change is promptly displayed on the screen, so that the effect of the change can be confirmed. In the claims, "a first list screen" and "a second list screen" assist to create the supply-and-demand plan which can satisfy the delivery time by changing the supply plan proposal according to a changing instruction by a user.

Further, in the present invention, the user can determine the necessity of a change of safety stock on the second list screen. That is, in case that though changing processing is tried to remove the occurrence of the supply disabled item

from the first list screen, and no effective changing method is found, there is a case that changing of safety stock from the second list screen becomes effective. Such examples are shown in Figs.22A and 22B and Fig.24.

As to the supply disabled item, the number of the item, the site where the supply disabled item is present and a time point when the supply disabled occurred, are derived and stored in the storage unit as information representing a supply disable reason, and the information is provided to the user. The present invention discloses functions to assist a user, based the information stored in the storage unit, so that the user can decide a countermeasure such as change of the supply plan proposal promptly and accurately in order to remove the supply disable reason.

The features of the present invention, as recited in the claims are not taught or suggested by the references of record. For example, neither Lidow nor Grosvenor, whether alone or in combination with each other, teaches the features of the present invention.

Lidow discloses a supply chain network where customers, suppliers, logistics providers, carriers, and financial institutions are all connected to a centralized supply chain server. The server receives forecasts from the customers detailing the orders that the customers desire. These forecasts are analyzed by the supply chain server to ensure that they conform to contractual agreements and do not contain errors. The forecasts are also used to warn the suppliers of future demands so that the suppliers can anticipate demands and plan inventory accordingly. The supply chain server checks with the suppliers to determine whether the forecasts can be fulfilled by the suppliers. If the forecasts cannot be fulfilled by the suppliers, the supply chain server contacts customers and suppliers and attempts to either redistribute the customer's demands to different suppliers or request that customers alter their

demands. When supply issues have been resolved, the customer's demands are sent to the suppliers in groups so that the suppliers need to prepare a smaller number of large orders. The supply chain server oversees and controls the processes involved in distributing the product from the suppliers to the customers, including the generation of purchase orders and invoices. Customers pay the supply chain server and that payment is then forwarded to the appropriate suppliers and logistics providers.

In Lidow, it is described that after the problem concerning supply capacity is solved, instructions concerning distribution of products are issued to the third party logistic and that payment is made. That is, in Lidow, the supply chain server has no means for selecting change of the supply means (transportation means). Further, there is no disclosure concerning the means for providing information useful to judge an item necessary to be readjusted concerning the safety stock, as displayed in the second list screen of the present invention.

Grosvenor discloses, in one embodiment, a method for automatically identifying and resolving one or more discrepancies in an outsourced manufacturing supply chain in which a plurality of supply chain partners participate. According to this embodiment, information representing one or more supply chain events is received from each of the supply chain partners in a database with which each of the supply chain partners may communicate over a public network. One or more rules are applied periodically to the supply chain event information, resulting in generating one or more alerts pertaining to one or more discrepancies that are found in the supply chain event information. The alerts are communicated to the supply chain partners who are participating in a transaction to which the discrepancies relate.

Each alert remains active until second information is received that represents a second supply chain event that resolves the alert.

However, in Grosvenor, there is no disclosure concerning means for changing the supply-and-demand plan and means for providing a user interface to remove occurrence of supply disabled item. Further, there is no disclosure concerning the means for providing information useful to judge an item necessary to be readjusted concerning the safety stock, as displayed in the second list screen of the present invention.

In view of the foregoing amendments and remarks, Applicants submit that claims 12-17 are in condition for allowance. Accordingly, early allowance of claims 12-17 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (referencing Attorney Docket No. 500.43055x00).

Respectfully submitted,

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.

Donna K. Mason
Registration No. 45,962

DKM/cmd
(703) 684-1120

FIG. 12

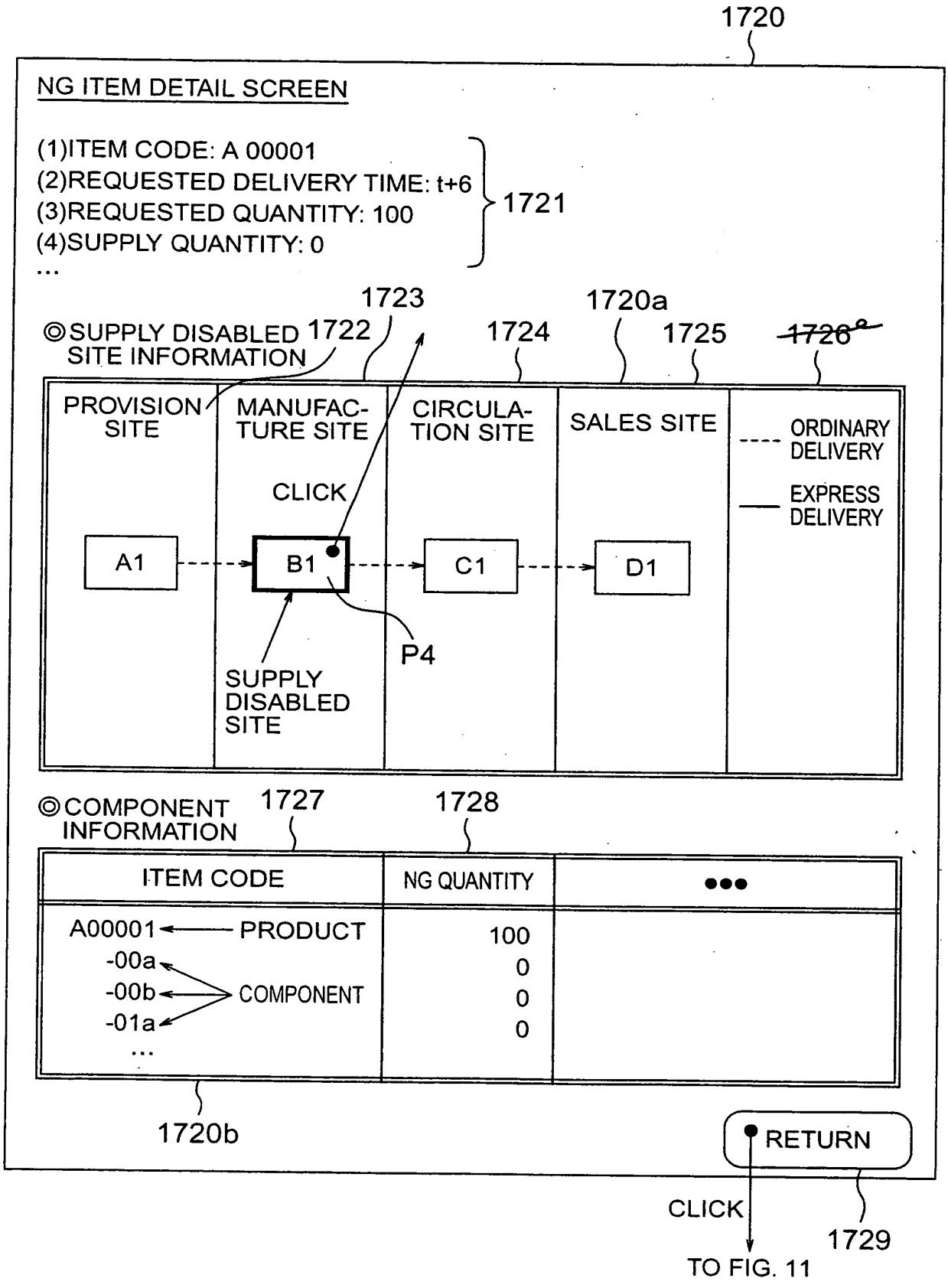

1720
NG ITEM DETAIL SCREEN
(1)ITEM CODE: A 00001
(2)REQUESTED DELIVERY TIME: t+6
(3)REQUESTED QUANTITY: 100
(4)SUPPLY QUANTITY: 0
...
1721
1723
1720a
◎SUPPLY DISABLED SITE INFORMATION
1722
1724
1725
1726
PROVISION SITE
MANUFAC-TURE SITE
CIRCULA-TION SITE
SALES SITE
ORDINARY DELIVERY
EXPRESS DELIVERY
CLICK
A1
B1
C1
D1
P4
SUPPLY DISABLED SITE
◎COMPONENT INFORMATION
1727
1728
ITEM CODE
NG QUANTITY
●●●
A00001
PRODUCT
-00a
-00b
-01a
COMPONENT
100
0
0
0
...
1720b
RETURN
CLICK
1729
TO FIG. 11

FIG. 13

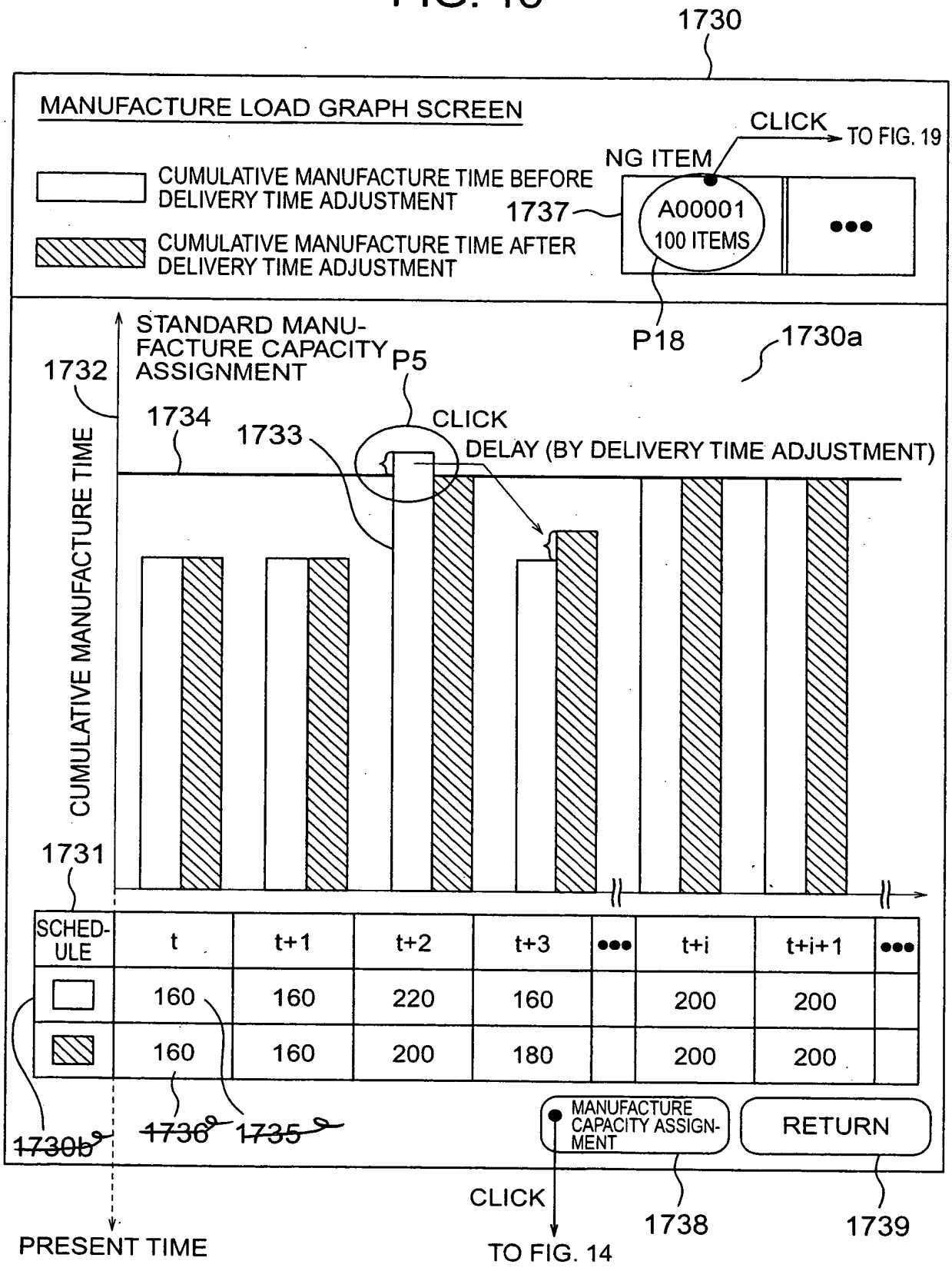

1730
MANUFACTURE LOAD GRAPH SCREEN
CLICK
TO FIG. 19
NG ITEM
CUMULATIVE MANUFACTURE TIME BEFORE DELIVERY TIME ADJUSTMENT
CUMULATIVE MANUFACTURE TIME AFTER DELIVERY TIME ADJUSTMENT
1737
A00001
100 ITEMS
P18
1730a
STANDARD MANU-FACTURE CAPACITY ASSIGNMENT
P5
1732
1734
1733
CLICK
DELAY (BY DELIVERY TIME ADJUSTMENT)
CUMULATIVE MANUFACTURE TIME
1731
SCHED-ULE
t
t+1
t+2
t+3
t+i
t+i+1
160
160
220
160
200
200
160
160
200
180
200
200
1730b
1736
1735
MANUFACTURE CAPACITY ASSIGN-MENT
RETURN
CLICK
1738
1739
PRESENT TIME
TO FIG. 14

FIG. 15

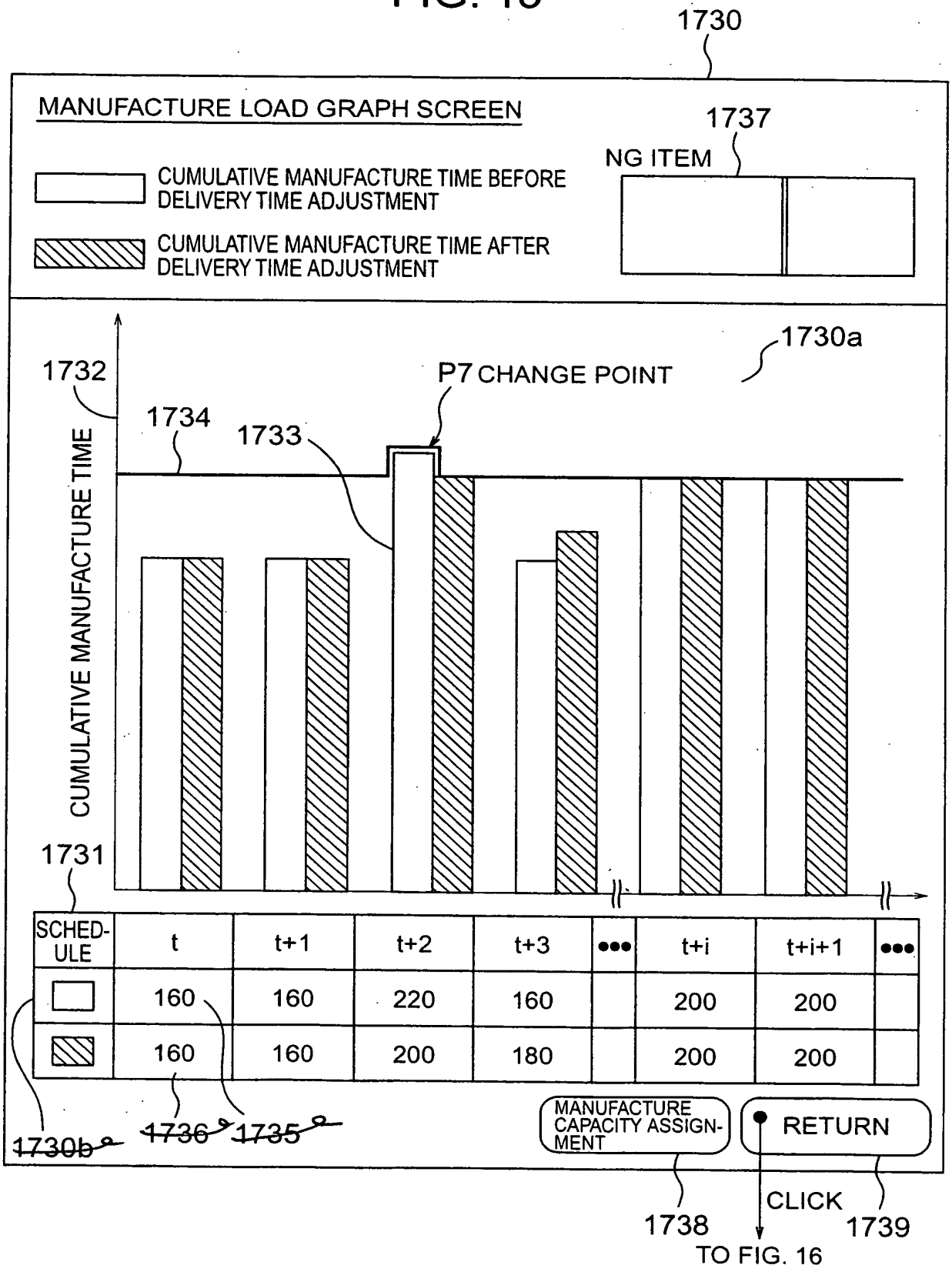

1730
MANUFACTURE LOAD GRAPH SCREEN
1737
NG ITEM
CUMULATIVE MANUFACTURE TIME BEFORE DELIVERY TIME ADJUSTMENT
CUMULATIVE MANUFACTURE TIME AFTER DELIVERY TIME ADJUSTMENT
1730a
1732
P7 CHANGE POINT
1734
1733
CUMULATIVE MANUFACTURE TIME
1731
SCHED-ULE
t
t+1
t+2
t+3
•••
t+i
t+i+1
•••
160
160
220
160
200
200
160
160
200
180
200
200
1730b
1736
1735
MANUFACTURE CAPACITY ASSIGN-MENT
RETURN
CLICK
1738
1739
TO FIG. 16

FIG. 16

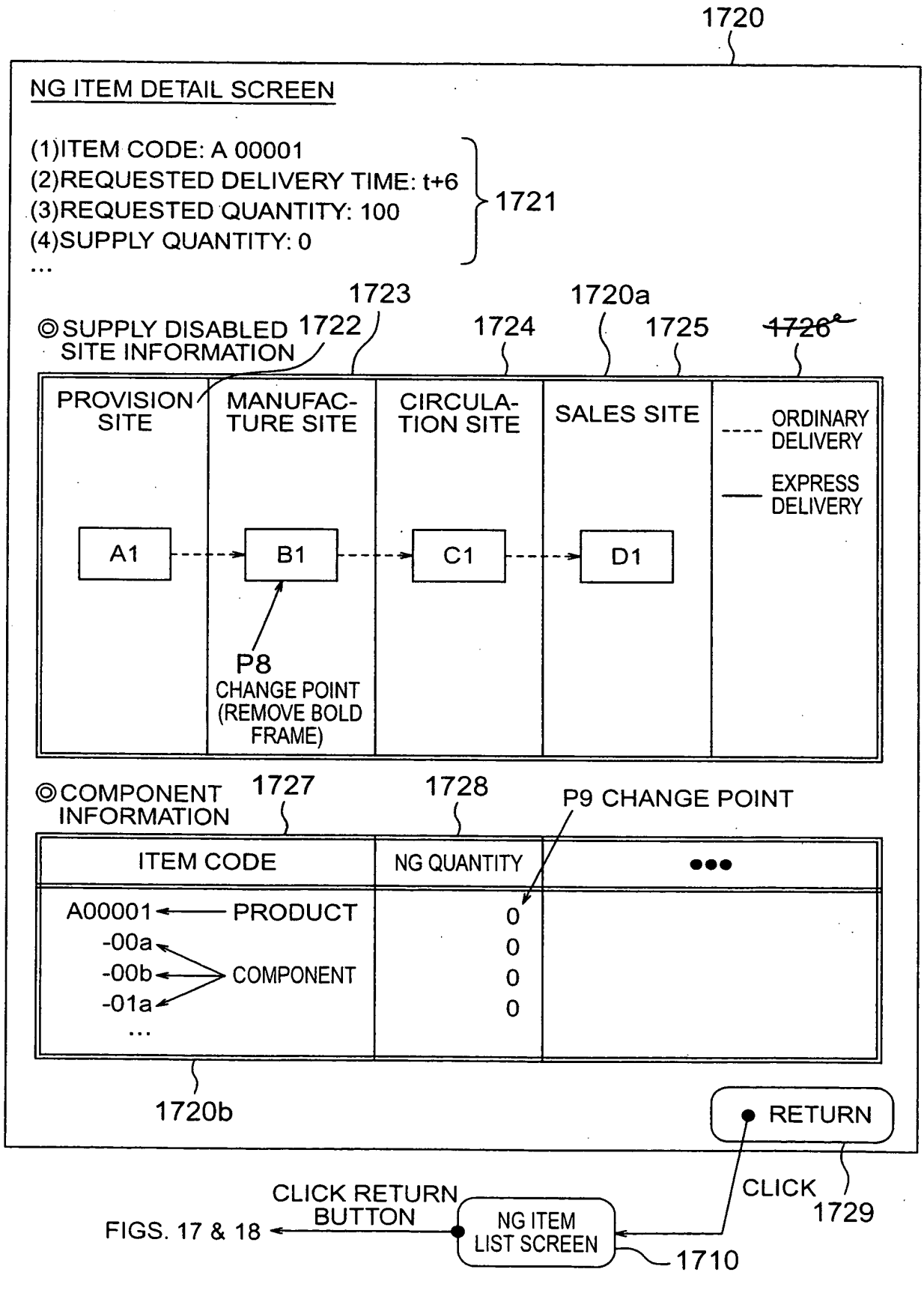

1720
NG ITEM DETAIL SCREEN
(1)ITEM CODE: A 00001
(2)REQUESTED DELIVERY TIME: t+6
(3)REQUESTED QUANTITY: 100
(4)SUPPLY QUANTITY: 0
...
1721
1723
1720a
◎SUPPLY DISABLED SITE INFORMATION
1722
1724
1725
1726
PROVISION SITE
MANUFAC-TURE SITE
CIRCULA-TION SITE
SALES SITE
ORDINARY DELIVERY
EXPRESS DELIVERY
A1
B1
C1
D1
P8
CHANGE POINT (REMOVE BOLD FRAME)
◎COMPONENT INFORMATION
1727
1728
P9 CHANGE POINT
ITEM CODE
NG QUANTITY
●●●
A00001
PRODUCT
-00a
-00b
-01a
COMPONENT
...
0
0
0
0
1720b
RETURN
CLICK
1729
CLICK RETURN BUTTON
FIGS. 17 & 18
NG ITEM LIST SCREEN
1710

FIG. 19A

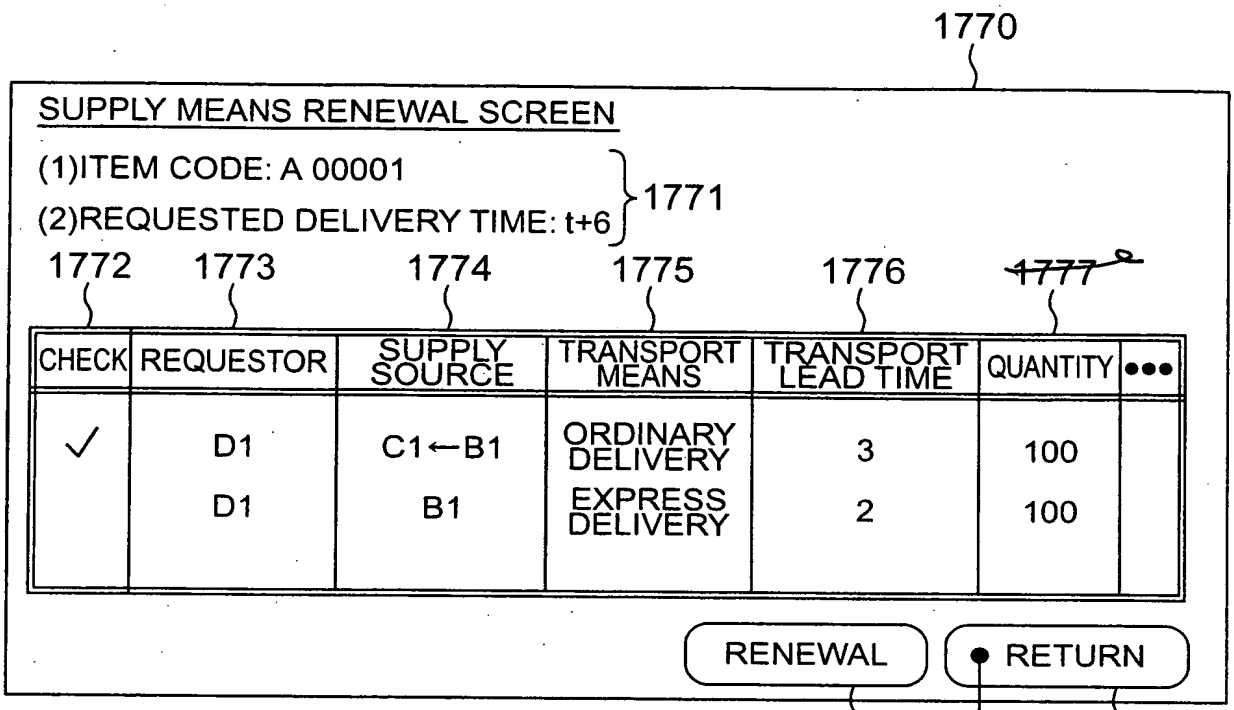
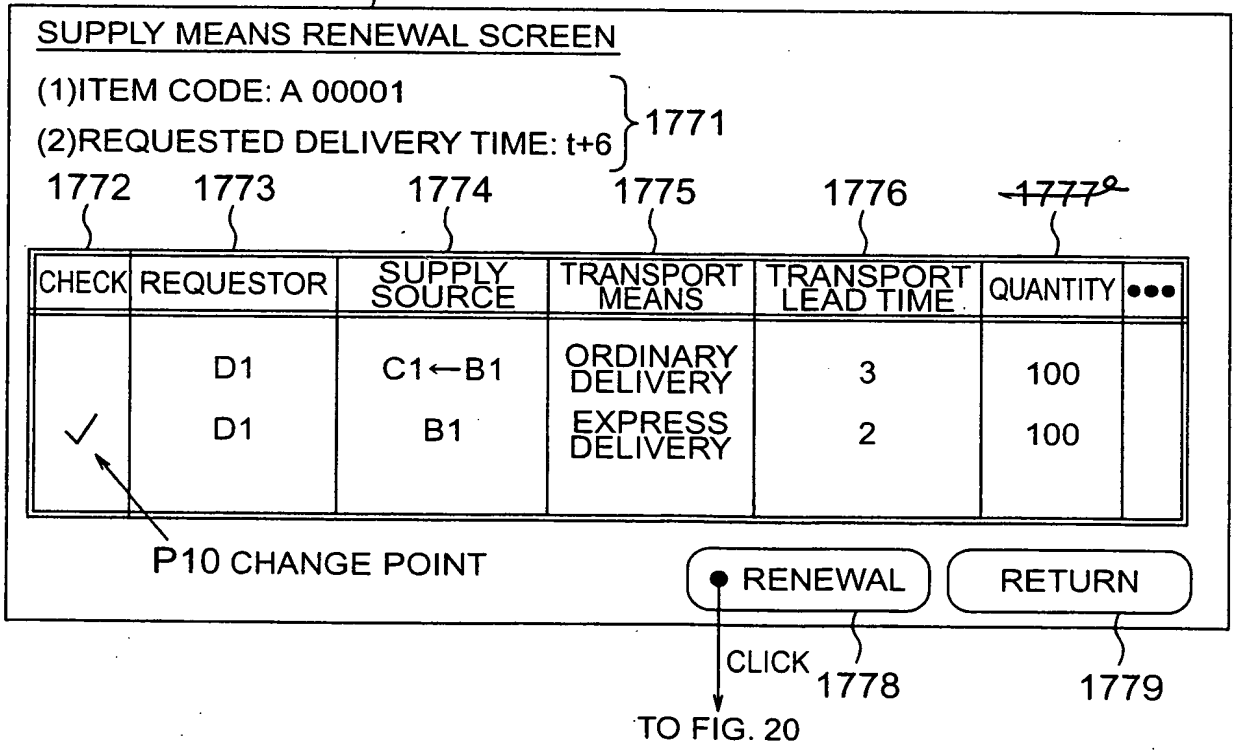


FIG. 19B



Annotated Marked Up Drawings

FIG. 20

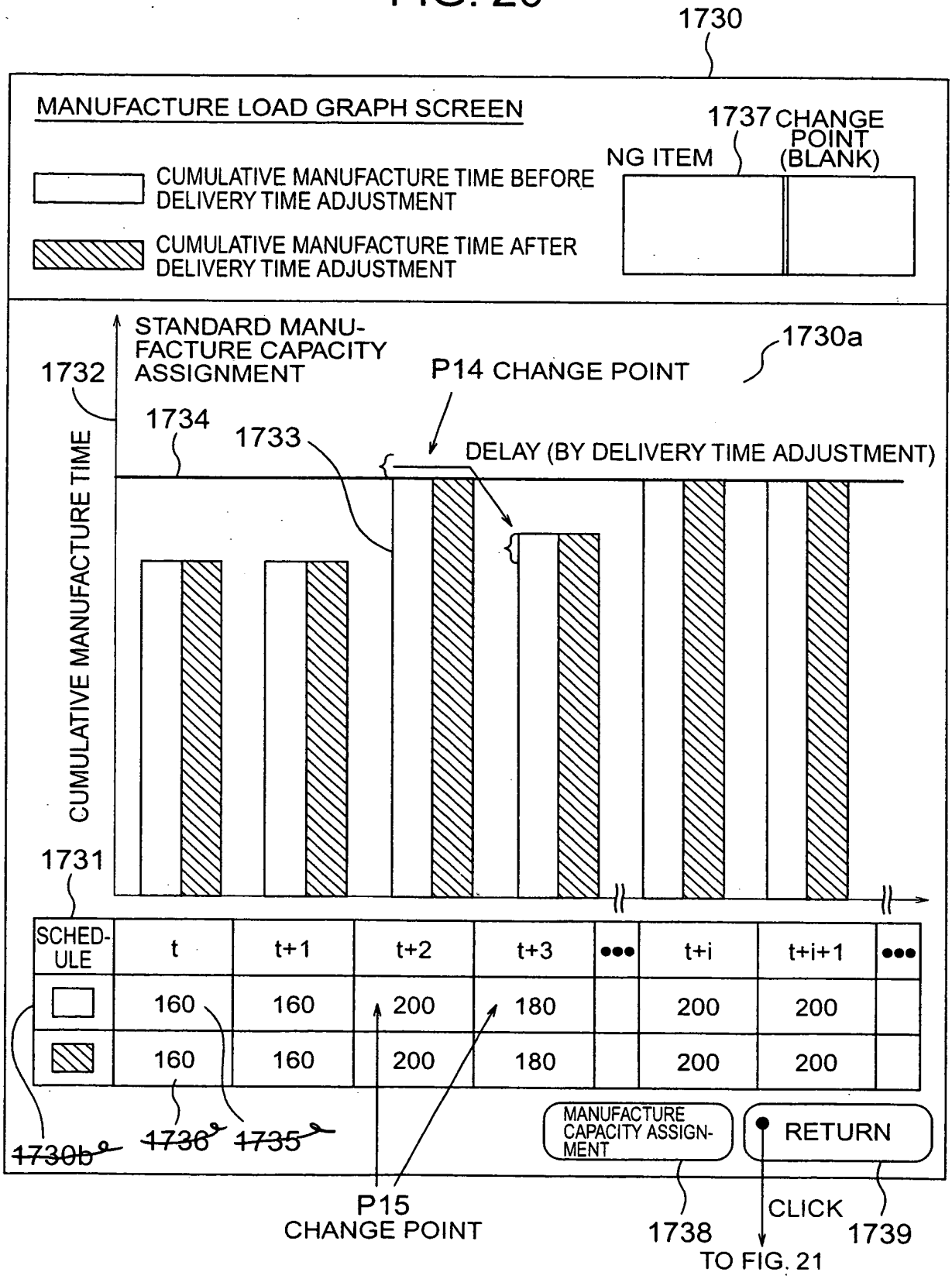
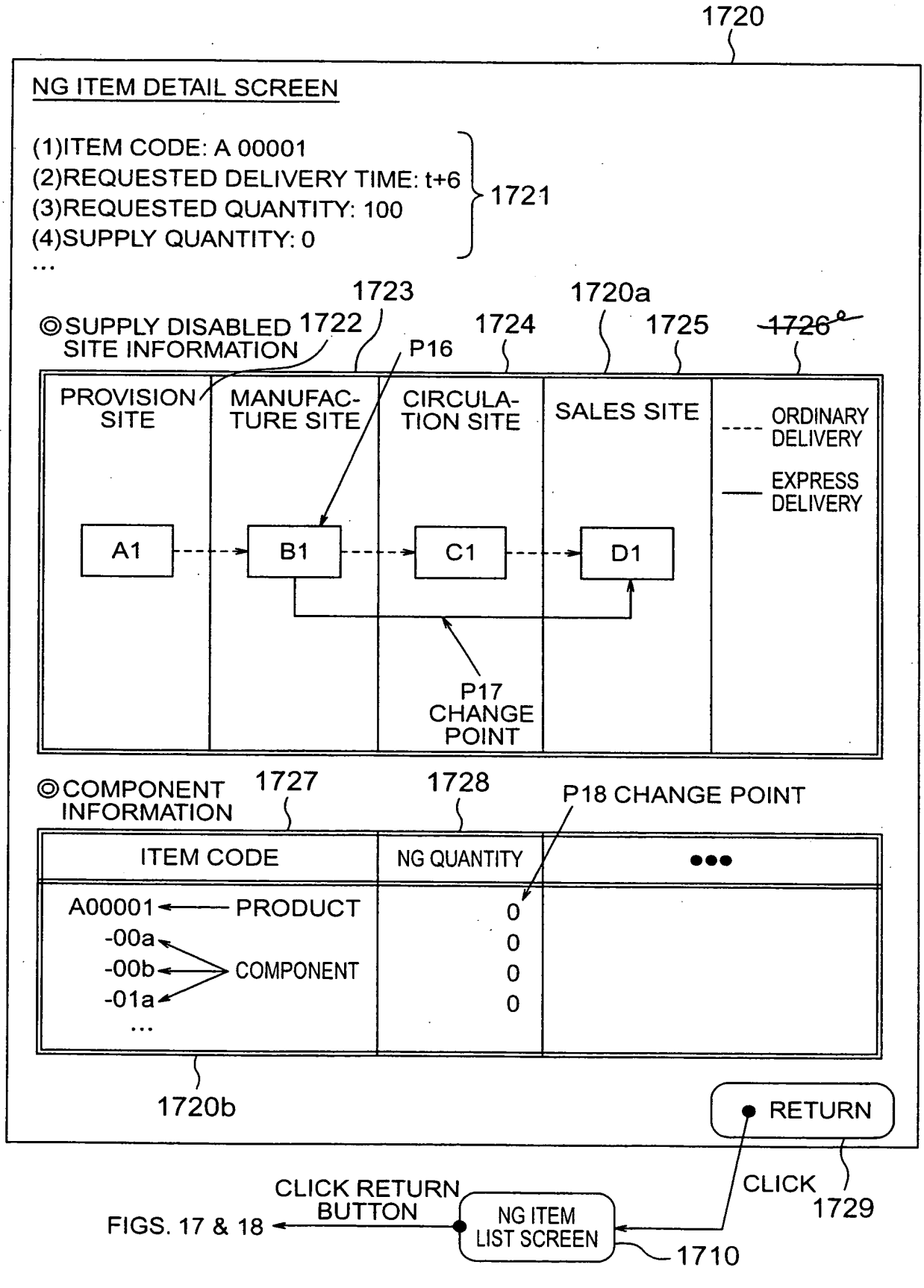


FIG. 21


1720
NG ITEM DETAIL SCREEN
(1)ITEM CODE: A 00001
(2)REQUESTED DELIVERY TIME: t+6
(3)REQUESTED QUANTITY: 100
(4)SUPPLY QUANTITY: 0
...
1721
1723
1720a
◎SUPPLY DISABLED SITE INFORMATION
1722
1724
1725
1726
P16
PROVISION SITE
MANUFAC-TURE SITE
CIRCULA-TION SITE
SALES SITE
ORDINARY DELIVERY
EXPRESS DELIVERY
A1
B1
C1
D1
P17 CHANGE POINT
◎COMPONENT INFORMATION
1727
1728
P18 CHANGE POINT
ITEM CODE
NG QUANTITY
●●●
A00001
PRODUCT
-00a
-00b
-01a
COMPONENT
0
0
0
0
...
1720b
RETURN
CLICK
1729
CLICK RETURN BUTTON
FIGS. 17 & 18
NG ITEM LIST SCREEN
1710

Annotated Marked Up Drawings

FIG. 25

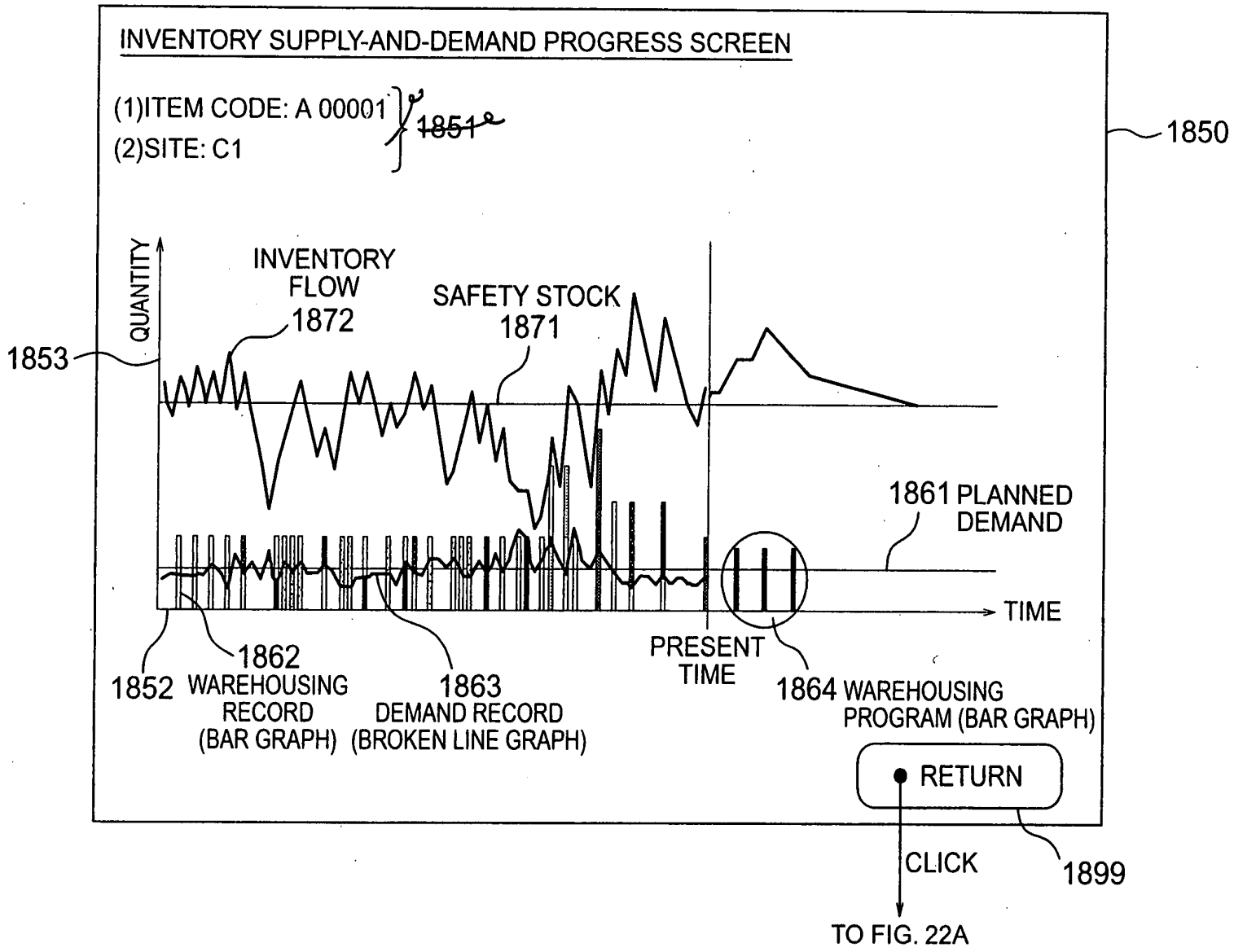
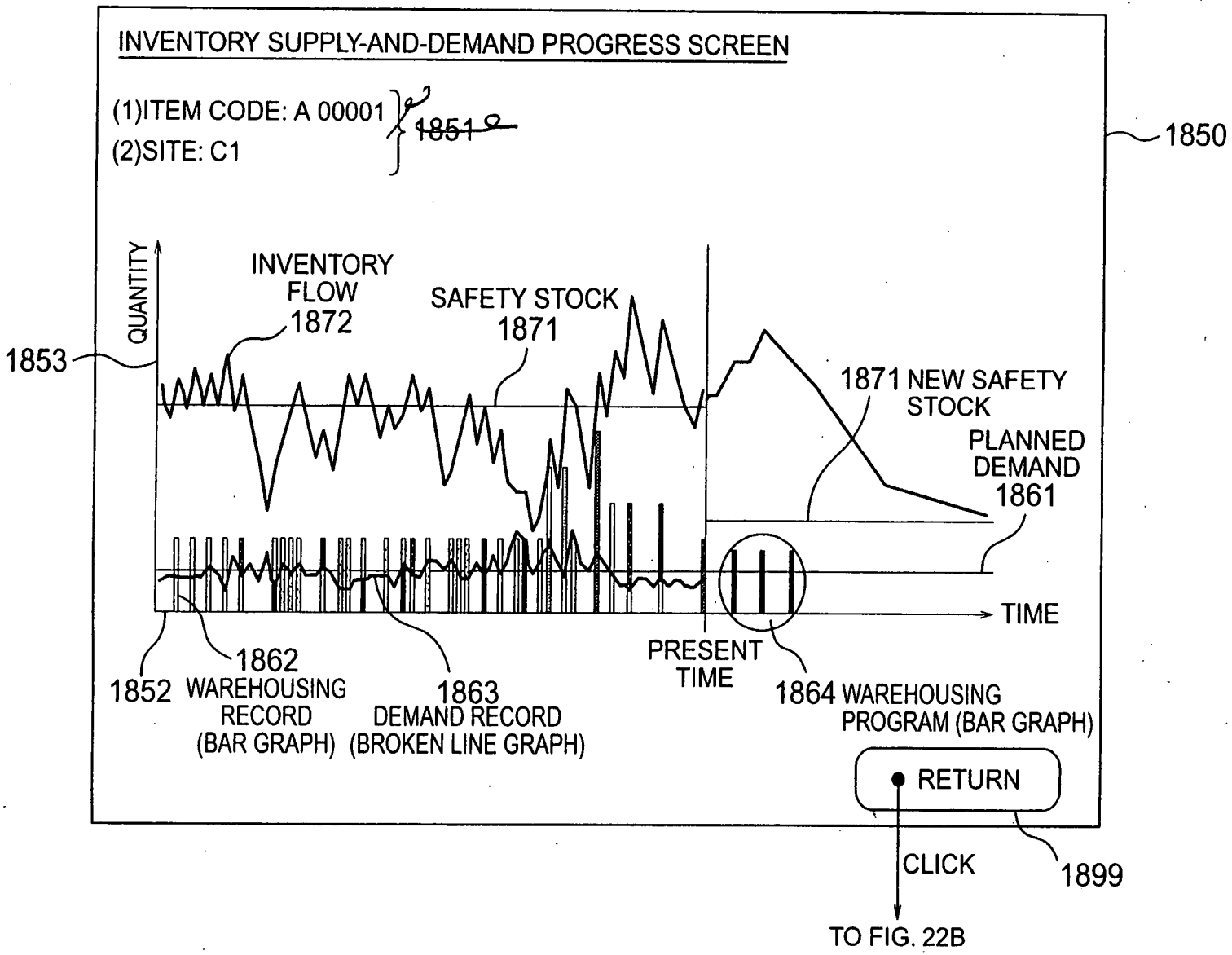


FIG. 26



Annotated Marked Up Drawings